

## A Remarkable New Species of the Genus *Necydalis* (Coleoptera, Cerambycidae) Discovered in Southern Vietnam

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**Abstract** A new species of the genus *Necydalis* is described from Mt. Brian of southern Vietnam under the name of *N. (Necydalis) meridionalis* sp. nov. The new species has close relationship to the members of the *N. esakii* group, and may be considered as a highly specialized species in the group. Mt. Brian of Lam Dong Province is the southernmost locality of the genus *Necydalis* in Indochina and about 300 km distant to the south from Mt. Tam Dao of Vinh Phu Province, an already-known locality of the genus.

Thirteen members of the genus *Necydalis* are known from Indochina and all of them were rather recently recorded in the past twenty years (HOLZSCHUH, 1989; TAKAKUWA & NIISATO, 1996; TAKAKUWA, 1997; NIISATO, 1998 a, b; NIISATO & N. OHBAYASHI, 2003, 2004). The known range of the genus in Indochina is restricted to northern areas, and none have so far been recorded from the south of about 20°N in latitude.

In the course of studying the necydaline fauna of Indochina, I found a remarkable new species recently collected from Mt. Brian of Lam Dong Province, southern Vietnam. Though it is quite peculiar in facies unlike any other members of the genus, it may have some relationship to the members of the *N. esakii* group. Mt. Brian of Lam Dong Province, the type locality of new species, is the southernmost known locality of the genus *Necydalis* in Indochina and about 300 km distant to the south from Mt. Tam Dao of Vinh Phu Province, which is the already-known locality of the genus in Vietnam. In the following lines, I will describe it under the name of *N. meridionalis* sp. nov. as the first representative of the genus from southern area of Indochina.

I wish to express my hearty thanks to Dr. Shun-Ichi UÉNO for his continuous guidance, and also to Messrs. Shigeo TSUYUKI and Akira YAGISHITA for their kind arrangement to obtain the type series of the new *Necydalis* species.

*Necydalis (Necydalis) meridionalis* sp. nov.

(Figs. 1–7)

Body length 19.2 mm in ♂, 23.0 mm in ♀ (from apical margin of clypeus to abdominal apex). Slender and medium-sized species of infusate body provided with

golden yellow pubescence at sides of thoraces.

**Male.** Colour black in head and thoraces, brown in abdomen, weakly shiny; elytra black, dark yellowish brown in basal fourth and along basal  $2/5$  near suture; hind wings translucent blackish brown; mouthparts light yellowish brown, blackish in clypeus except for yellowish apical part of apical lobe, mandibles blackish brown; antennae black, though slightly brownish in basal three segments; legs brown to yellowish brown, blackish in tarsi, most of hind tibia except for the base, upper sides of mid tibia and hind femur slightly infuscate.

Head relatively voluminous, moderately convex, 1.25 times as wide as apical or almost equal to the maximum width of pronotum, strongly and closely punctured, clothed with pale yellow hairs, partly with golden yellow pubescent maculation at the middle of frons and tempora behind eyes; frons quadrate, as long as wide, strongly convex in oblique line from basal corner to the middle of apical margin, markedly and triangularly declivous towards a deep median groove, the groove extending from apical margin of frons to the end of occiput, with apical margin triangularly concave by very deep suture; clypeus with basal lobe transverse triangular, moderately convex, smooth on surface, apical lobe trapezoidal, nearly a half of the basal width, slightly raised, scattered with a few large punctures; genae moderate in depth,  $4/9$  the depth of lower eye-lobes; vertex and occiput moderately convex, coarsely shagreened, rather distinctly raised near antennal cavities; tempora hardly produced, attaining external sixth of eye; eyes distinctly prominent though deeply emarginate, separated from one another by  $4/9$  the width of occiput or  $4/5$  the width of each lobe. Antennae slender though widened in middle segments, reaching the base of tergite 5, covered only with dense minute pale pubescence; scape rounded quadrate, slightly depressed,  $4/5$  the length of segment 3, segments 3 and 4 very weakly thickened apicad, segment 4  $3/4$  the length of the preceding, segments 5–7 broadened and distinctly depressed, segment 8 weakly so, apical three segments almost cylindrical.

Pronotum moderate in length, as long as the maximum width between lateral tubercles or  $1 + 1/4$  the width of apex, a little shorter than elytra, slightly broadened basad; sides moderately arcuate near middle, with conspicuous but small tubercles at basal  $5/12$ , gently arcuate near apical and basal third, clothed with dense golden yellow pubescence throughout; disc largely convex in basal  $3/4$ , on which large callosity before basal fourth is indistinctly divided in apical  $2/5$ , transverse raised area before basal margin, shagreened and densely clothed with brown pubescence, though almost glabrous and with a few coarse punctures on the callosity. Scutellum rounded triangular, concave along the median line, coarsely punctured, thinly pubescent.

Elytra as long as wide, widely dehiscent in apical  $3/4$ , thickly margined along suture; sides with distinctly prominent humeri, weakly narrowed in almost straight line to apices which are completely rounded at external angles but roundly angled at suture; disc moderately convex and strongly uneven, obliquely raised from humeri to apical  $3/8$ , thickened in apical fourth, strongly depressed on the other parts, strongly and coarsely punctured in most areas, sparsely scattered with pale yellow hairs, short



Figs. 1-2. *Necydalis* (*Necydalis*) *meridionalis* sp. nov. from Mt. Brian of Lam Dong Province, southern Vietnam. — 1, Holotype ♂; 2, allotype ♀.

brownish pubescence near apices and also dense golden yellow one near scutellum. Hind wings attaining to the apex of tergite 5.

Prosternum weakly concave in profile and coarsely rugosely punctured on surface before coxal cavities, scattered with golden yellow hairs, with strongly compressed intercoxal process. Meso- and metathoraces deeply closely punctured, densely clothed with golden yellow pubescence on mesepimeron, metasternum except for middle of



sides, apices of metepisternum and metepimeron. Abdomen long and very slender,  $2/3$  the length of body, almost smooth and sparsely brownish haired; ventrite 1 a little more than  $1/4$  the length of abdomen, quite cylindrical, ventrite 4 rather distinctly dilated apicad and as long as the preceding; anal ventrite with sides straightly dilated to middle then rather weakly arcuate to apex, with disc declivous towards mid-line just behind base, gradually deep towards apical margin which is widely triangularly concave; tergite 8  $1 + 1/3$  the length of the basal width, weakly narrowed to apex which is gently arcuate.

Legs long and markedly slender, thinly pale yellow haired on femora and tibiae; hind femur moderately swollen in apical  $2/5$  which is distinctly compressed; hind tarsus hardly thickened, with 1st segment  $7/10$  the length to the following two segments combined.

Male genital organ. Median lobe a little longer than anal ventrite, rather weakly arcuate in profile, weakly convex even at the base of apical lobe, bluntly pointed at apex, with dorsal plate a little shorter than ventral plate, narrowly truncate at apex. Tegmen slender, slightly longer than median lobe; paramere  $5/8$  the length of tegmen, dehiscent in apical  $4/5$ , almost parallel at sides, though slightly narrowed from middle to apex, densely provided with short setae near apices.

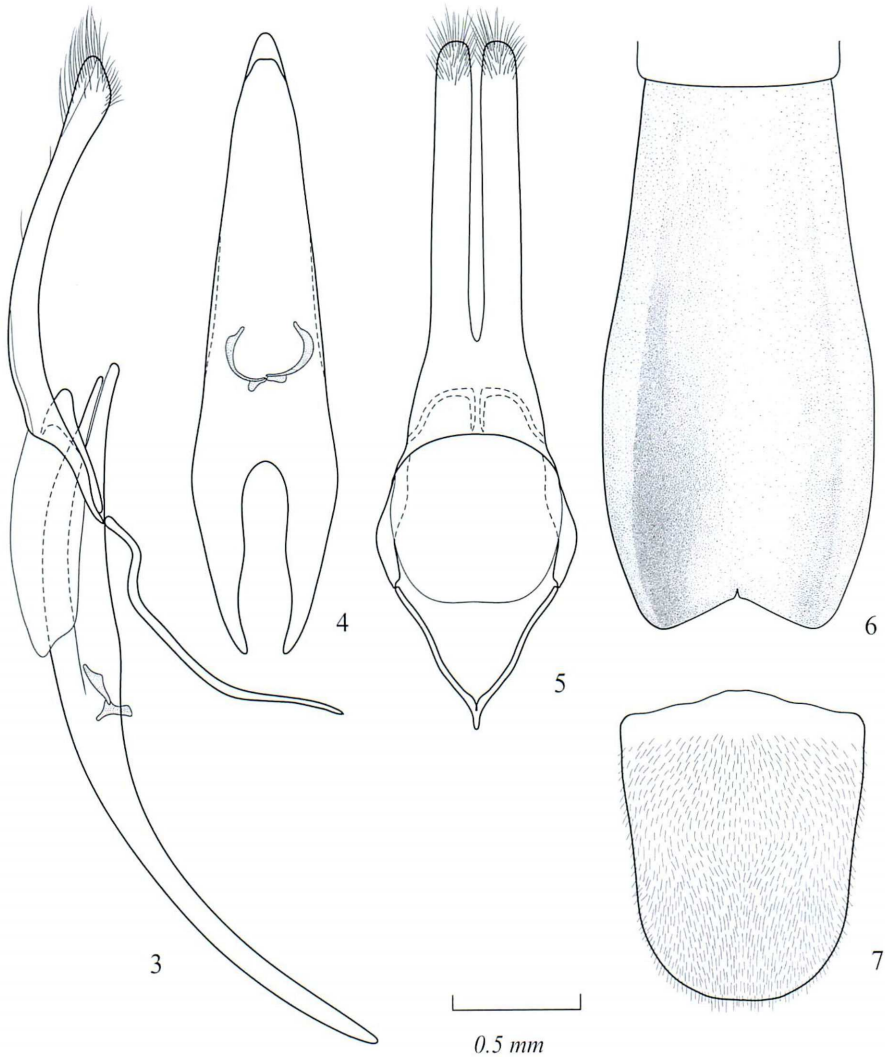
Female. Similar to male, though body fairly broad and not so slender. Colour almost as in ♂, though elytra except for the margins are largely dark yellowish brown, antenna brown in basal four segments, infusate on upper sides of segments 5–7 and almost black in apical four segments, hind tarsus entirely light yellow. Antennae reaching the base of tergite 4, with segments 5–9 slightly broadened and weakly depressed. Elytra a little longer than wide. Abdomen with anal ventrite simply flattened. Hind tarsus moderately broadened, with segment 1 more than twice as long as the following two segments combined.

*Type series.* Holotype ♂, Mt. Brian, 1,600 m in alt., near Bao Loc, Lam Dong Prov., S. Vietnam, 1~10-V-2006. Allotype ♀, same locality as the holotype, 19-III-2004. The holotype is preserved in the collection of the National Museum of Nature and Science, Tokyo, and the allotype is in the private collection of NIISATO.

*Distribution.* Southern Vietnam.

*Notes.* *Necydalis meridionalis* sp. nov. is a remarkably peculiar species in having very slender infusate body with long and slender legs, and largely golden pubescent sides of thoraces, and easily distinguished by the general appearance to the other members of the genus. True affinity of the new species seems uncertain for the reason of its external peculiarity. Consulting with the male abdomen and the genital organ, the new species has closer relationship to the members of the *N. esakii* group; the shape and concavity of anal ventrite, the simply arcuate median lobe with the narrowly truncate apex of dorsal plate, and the slender parallel-sided parameres, are almost identical with those of *N. esakii* MIWA et MITONO from Taiwan or *N. choui* NIISATO from Guangxi of the same species-group. *Necydalis meridionalis* sp. nov. may be a highly specialized species of the same lineage of the *N. esakii* group in southern area of Indochina.

Mt. Brian of Lam Dong Province is located just south of  $12^{\circ}$ N in latitude and is



Figs. 3–7. Genitalia and anal ventrite of male of *Necydalis (Necydalis) meridionalis* sp. nov. from Mt. Brian of Lam Dong Province, southern Vietnam. — 3, Median lobe and tegmen, lateral view; 4, median lobe in dorsal view; 5, tegmen in dorsal view; 6, anal ventrite in ventral view, showing the concavity; 7, tergite 8 in dorsal view.

about 300 km distant to the south from Mt. Tam Dao, which is the most approximate locality of the genus *Necydalis* in Indochina. As was written in introduction, no member of the genus has so far been recorded from the south of  $20^{\circ}\text{N}$  in Indochina. Discovery of a *Necydalis* species from such lower latitude as southern Vietnam is very interesting in zoogeographical point of view, and some unknown members of the genus will be found from the wide blank area of distribution beyond 300 km in eastern Indochina by

further field survey.

Ecological data of *N. meridionalis* sp. nov. is quite unknown since I was unable to receive any information from the collectors. The pair of the type series have different data labels separated in March of 2004 and May of 2006, and may be collected on flight on certain peak of Mt. Brian.

## 要 約

新里達也：南ベトナムから発見されたホソコバネカミキリ属の1新種。—— インドシナでは、過去20年間の比較的新しい時代に、13種に及ぶホソコバネカミキリ類が次つぎと発見されてきたが、それらはいずれも北部山岳地に限られ、およそ北緯20度以南の地域からは本属のいかなる種も知られていなかった。最近になって、既知の分布地からはるか南に位置する、南ベトナムのラムドン県から本属の基亜属に含まれる顕著な1新種が発見されたので、本論文において *Necydalis* (*Necydalis*) *meridionalis* sp. nov. と命名し記載した。本種は、きわめて特異な外観をもち、基亜属の既知種とは容易に識別ができるが、基本的な体の構造や交尾器を含む雄の二次性徴から判断するかぎり、おそらくエサキホソコバネカミキリ種群の種に近いものではないかと考えられる。なお、基準産地のブライアン山は、ホソコバネカミキリ類の既知産地としてはもっと近いビンフー県のタムダオ山から直線距離でおよそ300 km 南に位置し、本属の中心的な分布域からも遠く隔離されている。このような低緯度地域から本属が発見されたことは生物地理学的にみて非常に興味深い。いっぽう、北緯12~20度にわたるこの広大な分布の空白地帯も、本属の未知の種が生息することは十分に予想され、今後の調査によるさらなる新発見が期待される。

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